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ABSTRACT

This paper examines the links between various personal and social risk factors and drug use among youth living in rural communities. Data were collected through self-report surveys administered to 1,656 7th- and 8th-grade students and 1,205 11th- and 12th-grade students in 9 rural communities with populations ranging from 451 to 18,400. Surveys included the American Drug and Alcohol Survey (a drug use survey) and the Prevention Planning Survey, which measures a wide range of characteristics linked to adolescent drug use. Students were assigned to three groups--high, moderate, and no drug use--based on current level and type of drug use, and the prevalence of various risk and protective factors was examined for each group. A discussion of peer cluster theory focuses on the basic premise of adolescent drug use as a group activity that takes place in small peer clusters with group norms for drug use. Variables analyzed include drug use of friends, peer encouragement to use or avoid drugs, school adjustment, school adjustment of peers, participation in formal school or community activities, family stability and support, family sanctions against drugs and communication about drug dangers, family involvement in school activities, depression, low self-esteem, anger, need for excitement and risk taking, delinquency, violent behavior, and victimization. (Contains 102 references and 14 figures.) (SV)

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Risk and Protective Factors for Drug Use Among Rural American Youth

E.R. Oetting, R.W. Edwards, K. Kelly, and F. Beauvais

INTRODUCTION

Rural and urban America differ in many ways, but drug use is a common phenomenon throughout the country. There may be differences in the extent, social contexts, and consequences of use, but, in general, drugs are as much a problem in rural America as they are in cities. Commonality between urban and rural areas also appears when the personal and social risk factors for drug use are examined: Many of the same characteristics relate to drug use among both urban or rural adolescents.

This chapter illustrates the links between various personal and social risk factors and drug use among youth living in rural communities. Data were collected through self-report surveys administered to 7th and 8th grade and 11th and 12th grade rural students in nine rural communities in nine States with populations of less than 100,000; none were suburban or bedroom communities. The populations of these communities ranged from 451 to 18,400. Surveys included a drug use questionnaire, The American Drug and Alcohol Survey™, and the Prevention Planning Survey™, a questionnaire that includes short scales measuring a wide range of characteristics that have been linked to drug use among adolescents. Data from the survey sites were combined into a total sample for the figures in this report.

METHOD

Questionnaires were administered anonymously in schools. Students could elect to not complete the surveys; however, 98.4 percent of all students attending school on that day did complete them. The drug use survey includes 40 checks for internal consistency and exaggeration. Questionnaires positive on three or more of these checks were rejected before analyses; in this case, 3 percent of the students were eliminated. The results reported here are for 1,656 rural 7th and 8th grade students

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and for 1,205 rural 11th and 12th grade students. Ethnic proportions were: 77.2 percent white, 5.2 percent African-American, 2.3 percent Native American, 3.1 percent Hispanic, and 12.2 percent other. Of the total, 52.4 percent were female.

The figures in this chapter contrast proportions of rural youth falling into three drug use classifications: high, moderate, and no drug involvement. Students were assigned to one group based on current level and type of drug use. Current drug involvement was assessed by classifying each survey respondent into one of 34 drug use types ranging from "dependent or predependent" to "never tried alcohol or drugs" (Oetting and Beauvais 1983). These drug use types were ordered in a hierarchy of increasing severity and risk to the individual, providing a score for overall drug involvement ranging from 1 to 34. Construct validity of this measure has been demonstrated in a number of studies that showed the score for overall drug involvement to be consistently related to those psychological and social characteristics that are known risk factors for drug use (Oetting and Beauvais 1987*a*, 1987*b*; Swaim et al. 1989, 1993). Adjacent drug use types share some characteristics of drug use and can be combined into larger types. In the current study, the drug involvement score was collapsed to assign individuals to one of three groups.

The high drug involvement group included those who were using multiple drugs, or were using one drug several times a week, and/or were getting drunk virtually every weekend and often during the week as well. Those who were classified as being highly drug involved made up 5.3 percent of the rural 7th to 8th graders and 13.6 percent of the 11th to 12th graders.

The moderate drug involvement group included those who did not meet the criteria for heavy involvement but were using drugs at least once a month or were getting drunk at least once a month. Most of the youth in this moderate involvement group also rated themselves as drug users, indicating that their use was likely to continue at that level or increase. Those who were classified as being moderately drug involved comprised 17.1 percent of 7th to 8th and 18.6 percent of 11th to 12th graders.

The low or no involvement group consisted of those who were not currently using any drug and had not been drunk in the last 30 days. They had low current involvement with drugs although they may have experimented with drugs, or gotten drunk, in the past and may have used some alcohol in the last 30 days. Those classified as having no use

comprised 77.6 percent of 7th to 8th and 67.8 percent of 11th to 12th graders.

The Prevention Planning Survey™ includes items and short scales that assess a variety of personal and social characteristics. Some risk factors are assessed with single items (for example, "Have you ever flunked a year in school?"). Other risk factors are assessed with self-report scales ranging from 2 to 11 items. Table 1 lists the risk and protective factors included in the survey with the number of items used for each measure and internal consistency reliabilities of scales. The items are short and simply worded so that students with weak reading and comprehension skills can complete the measures reasonably well (i.e., "I like my teachers" or "Does your family care about you?"). Responses for most items are short Likert scales such as "a lot, some, not much, not at all." To identify individuals at risk, a priori cutting scores have been established for all risk factors. Questions about behaviors assess lifetime prevalence (i.e., "Have you ever flunked a year in school?" or "Have you ever been arrested?") and are answered "yes" or "no."

PEER CLUSTER THEORY AND RISK FACTORS FOR ADOLESCENT DRUG USE

Peer cluster theory (Oetting and Beauvais 1986*a*, 1986*b*) was created to help explain the strong relationship typically found between drug use and the drug involvement of peers. The basic premise is that adolescent drug use is almost entirely a group activity taking place in the social context of peer clusters. Peer clusters consist of best friends, couples, or a small group of close friends who share attitudes and drugs and establish group norms for drug use. Youth who are at risk tend to self-select into peer clusters (i.e., adolescents with poor grades and who dislike school often form peer clusters that have a high potential for deviance). The potency of peer influence on drug use is not a new concept, but peer influence is a broad term. Peer cluster theory differs from peer influence in that it contends that small identifiable peer clusters determine where, when, and how drugs are used.

In addition to focusing on peer associations, peer cluster theory also emphasizes the importance of the psychological and social characteristics that underlie drug use. These characteristics set the stage for peer clusters

TABLE 1. *Risk and protective factor variables.*

N = 12,647, grades 6 to 12	No. of items	Alpha reliability
Peer encouragement		
Getting drunk	single item	
Using marijuana	single item	
Using inhalants	single item	
Using other drugs	3	0.93
Peer sanctions		
Getting drunk	single item	
Using marijuana	single item	
Using inhalants	single item	
Using other drugs	3	0.95
School adjustment		
General school adjustment	6	0.84
Failed a year	single item	
Kicked out or suspended	single item	
Ditched school	single item	
Peer school adjustment		
General school adjustment	5	0.85
Failed a year	single item	
Kicked out or suspended	single item	
Ditched school	single item	
Formal activities	single items	
Family support and conflict		
Broken family	non scalar	
Family cares	3	0.81
Family fights/argues	2	0.79
Beaten by parents	single item	
Beaten up by siblings	single item	
Family sanctions		
Getting drunk	2	0.81
Using marijuana	2	0.73
Using inhalants	2	0.80
Using other drugs	2	0.69
Family communication about drug dangers		
Getting drunk	single item	
Using marijuana	single item	
Using inhalants	single item	
Using other drugs	single item	
Family support of the school		
Family involvement in school activities	3	0.71
Family support of school goals	4	0.87
Depression	6	0.91
Self-esteem	11	0.87
Violence		
Beaten up someone	single item	
Robbed someone	single item	
Taken a gun to school	single item	
Scared someone with a weapon	single item	
Hurt someone with a weapon	single item	
Victimization		
Beaten up by a nonfamily member	single item	
Been robbed	single item	
Hurt with a weapon	single item	
Raped or sexually assaulted	single item	

to emerge and evolve either toward or away from drug use. For example, family and school are primary socialization forces that influence youths' attitudes and behaviors and contribute to the probability that youth will or will not become involved in drug using peer clusters. Following is a brief summary of peer cluster theory; for details, see Oetting (1992) and Oetting and Beauvais (1987*a*, 1987*b*).

Strong connections between child and family usually communicate prosocial norms and behaviors and provide a solid foundation for doing well in school and building friendships with other young people who share positive norms and ideals. Adolescents whose families communicate antidrug values and attitudes are likely to develop friendships with other healthy youth. The resulting peer clusters are likely to share prosocial and antidrug attitudes and beliefs. Similarly, when young people do well in school and like school, and when the teachers and the school environment communicate positive values, those youth are also likely to form peer clusters that have a positive influence. However, when there are weak bonds with the family and/or school, when the family is dysfunctional, or when antisocial or prodrug norms are communicated, young people are more likely to be attracted to and associate with other problem youth. When this occurs, the chances are greatly increased that the resulting peer clusters will become involved with drugs.

Factors beyond the family and school that can influence drug use include poverty, a bad neighborhood, and the media. Although these factors relate to drug use, peer cluster theory suggests that they influence drug use indirectly through one or more of the primary socialization agents. Poverty, for instance, has a strong influence because it can damage the stability of the family, hurting the family's ability to communicate prosocial norms. A bad neighborhood may influence drug use by making it hard to associate with positive peer clusters and easy to form friendships with drug users. Poverty and a disadvantaged environment can also mean poorly funded, inadequate schools with high dropout rates. Family, peer, and school problems can have major effects on youth by isolating them from prosocial attitudes and norms and by teaching antisocial, prodrug attitudes and behaviors.

Young people spend a lot of time watching television and listening to the radio and recorded music. Peer cluster theory suggests that media influence is strongly mediated by family and peers. What adolescents watch and listen to and their perceptions of what it means are largely determined by their friends and family.

Religion, a positive force in the lives of many rural youth, also affects drug use, primarily through family and peer associations. Adults often find their own religious paths, independent of those of their primary family, but religious adolescents almost always come from religious families. The child exposed to religious values is likely to adopt other prosocial and antidrug norms from his or her family.

The following sections discuss the primary socialization agents, beginning with peers because of their critical importance in drug use, then covering school and family. The relationships between these characteristics and drug use among rural youth are presented. An adolescent's personal characteristics can also create potential problems because they limit the ability to bond with parents or develop good school adjustment or because they increase the probability of bonding with deviant peers. Therefore, some personal characteristics of young people that are related to drug use are discussed.

PEER CLUSTERS AND DRUG USE

It has been long recognized that peers play a critical role in deviant behavior. Sutherland's (1947) differential association theory proposed that interactions within primary interpersonal groups can lead to the learning of deviant attitudes and behaviors. Differential association means that when the strength of deviant attitudes outweighs the strength of antideviant attitudes, the outcome is likely to be deviant behaviors, including substance use (Sutherland and Cressey 1970). In 1953, Becker found that adolescents who used marijuana had friends that used marijuana. Over the last 40 years, research has continued to consistently demonstrate the critical importance of peer drug use to adolescent drug use (Adler and Lotecka 1973; Battistich and Zucker 1980; Beauvais et al. 1982; Brook et al. 1980, 1982, 1983; Huba et al. 1979; Kandel 1985; KaVari 1993; Lawrence and Velleman 1974; Lopez et al. 1989; Oetting and Beauvais 1987*a*, 1987*b*, 1989; Oetting et al. 1989; Oetting and Goldstein 1979; Tolone and Dermott 1975; Wechsler and Thum 1973). The premise of the peer cluster theory, that adolescent drug use is a group activity of peer clusters that develop shared norms about drug use, is consistent with these earlier findings.

Drug Use of Friends

Dinges and Oetting (1993) found that 90 percent of adolescents who use drugs have friends who use those same drugs. Further, the more drugs adolescents use, the more likely they are to have friends who use not only those drugs but other drugs as well. For example, whereas 35 percent of those who used only marijuana had friends who used downers, 70 percent of those who used uppers, cocaine, and marijuana but not downers had friends who used downers. These results suggest that as the drug use problem increases for an individual the chances that it will get even worse grow larger.

Thus, one of the biggest risk factors for later, more serious drug use is existing drug use. The typical sequence of drug use starts with tobacco, beer, and wine, moves to marijuana, and then escalates to other drugs (Dupont 1984; Kandel et al. 1978; Mills and Noyes 1984; O'Donnell and Clayton 1982).

Peer Encouragement To Use Drugs

Drug-using youth not only have drug-using friends, but those friends also encourage drug use. Figure 1 shows the percentage of youth in each drug involvement classification who have friends who suggest using a particular substance either "some" or "a lot." Similar patterns appear among rural 7th to 8th grade and 11th to 12th grade youth; users are far more likely to be asked to get drunk and to use marijuana than nonusers, but among 7th to 8th grade youth, users are also more likely to be asked to use inhalants or other drugs.

Compared to 7th to 8th grade users, fewer 11th to 12th grade students indicate that they are asked to use other drugs. It seems unlikely that there is really less social influence to use among older drug users, particularly when their actual drug use rates are higher. The difference may occur because older users interpret the question in a slightly different way. Some older adolescents may be insisting that they are using of their own volition; they may say that nobody actually asks them to use drugs.

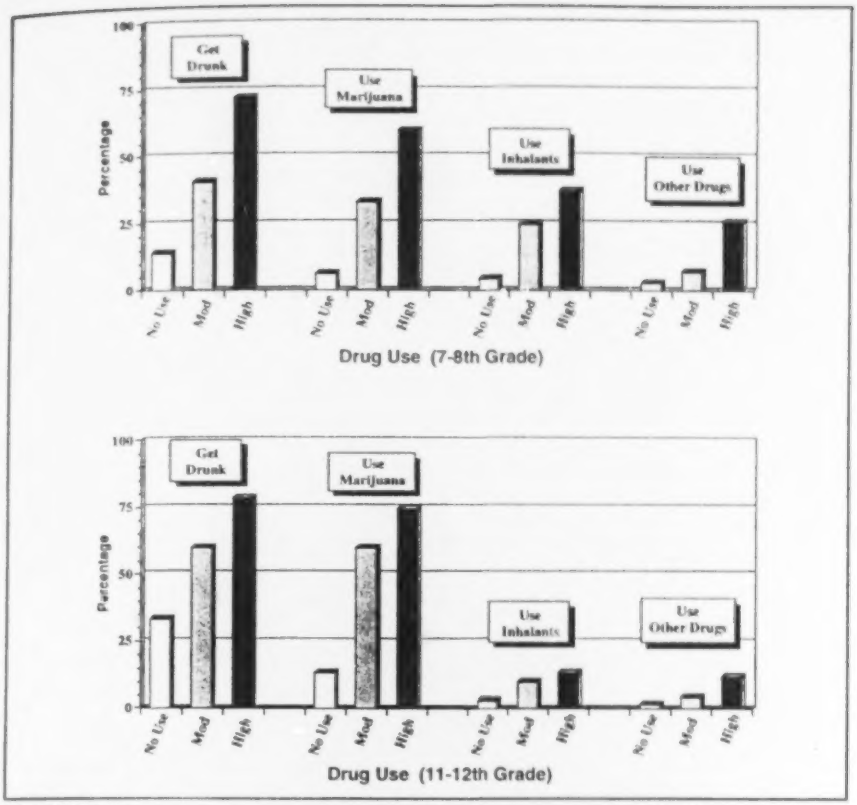

FIGURE 1. *Peer encouragement and drug use: "Friends ask you to . . . ."*

This has been a frequent response in the authors' interviews with older drug users. They argue against any implication that they are subject to peer pressure and claim that drug use is their own decision. It is also possible that older adolescents involved in a drug-using lifestyle simply assume drug use will take place as part of their activities, so they are not really asked to use.

Adolescents are under much more pressure to conform than they are willing to admit, but this is primarily because they do not see it as pressure. One difference between peer cluster theory and peer pressure theories is related to this principle. The image many people have when they think of peer pressure is either of the pusher who is trying to get a youth to buy drugs or of a chronic drug user suggesting drug use to a nonusing youth. Antidrug use ads frequently show the pusher suggesting drug use or suggesting that a child sell drugs to friends. This public

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image is usually wrong. Most adolescents are part of small peer clusters in which each member of the group is a participant in the decisions about what the group will wear, how they will talk, how they will wear their hair, what they believe, and how they will use or not use drugs. From the outside of the group, the fact that they all are dressing, looking, and talking alike might look like they are responding to peer pressure. In fact, there is a very strong peer social influence operating that encourages conformance to peer cluster norms. From the inside of the peer cluster, however, it does not feel like pressure. It feels more like mutual agreement; even though there is a great need to conform, it does not seem to the adolescent that anyone is suggesting anything or applying pressure to behave in a particular way.

Peer Sanctions Against Using Drugs

Another aspect of peer influence is whether a youth's friends would try to stop drug use. Figure 2 shows that there are also large differences between drug using and nonusing youth in their perceptions of whether a friend would try to stop them from using drugs. Nondrug users are much more likely to have friends who would stop them from using; for all drugs and grade levels, around 80 percent reported that they had friends who would try to stop use of drugs either "some" or "a lot." In contrast, less than one-third of heavy users reported having friends who would try to stop marijuana use.

As might be expected, peer sanctions against getting drunk are not as strong as those against using other drugs. There are large differences between drug users and nonusers, but only a little more than half of the nonusers and about a fourth of the drug users had friends who would try to stop them from getting drunk. Getting drunk tends to be an expected and relatively approved behavior for many rural youth.

Dinges and Oetting (1993) found that 90 percent of drug users have friends who are using drugs. It is interesting that this figure shows that about half of these drug users also have friends who would try to stop them from using drugs. This may occur because many adolescents are members of more than one peer cluster; they have some friends who use drugs but others who would try to stop them from using. As an example, one young woman the authors interviewed said, "If my boyfriend knew that I was using drugs with my girlfriends, he would kill me!"

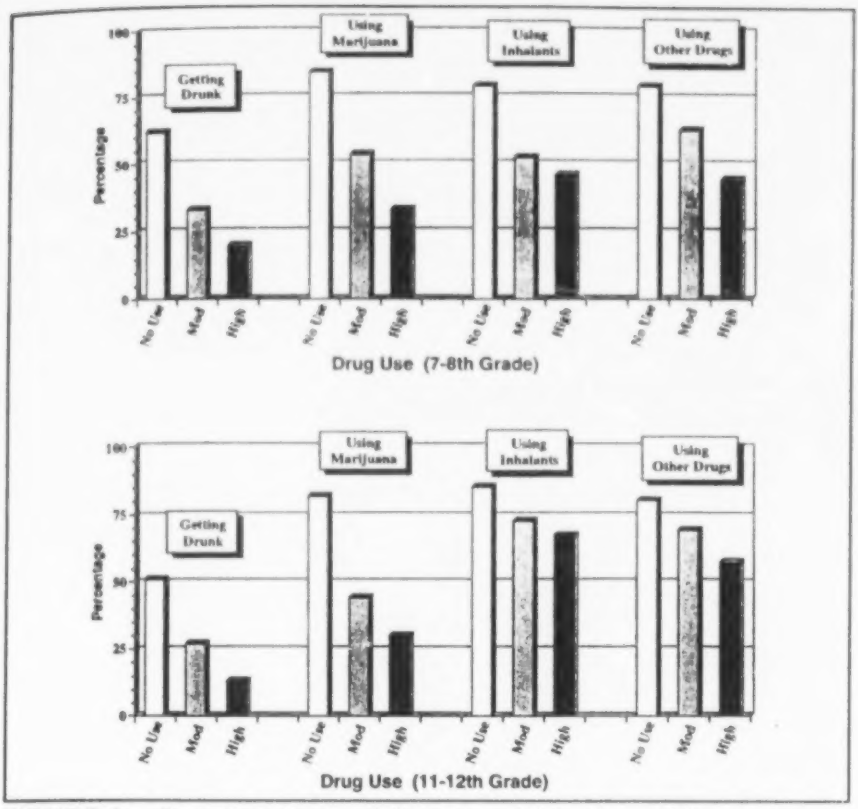

FIGURE 2. *Peer sanctions and drug use: "Friends would try to stop you from . . . ."*

Interestingly, peer sanctions against alcohol and marijuana use get weaker as adolescents get older, but there is a noticeable increase in peer sanctions against using inhalants or other drugs from the 7th to 8th grades to the 11th to 12th grades.

Edwards (this volume) has noted the variability in drug use across rural communities that is usually accompanied by variability in peer drug associations. In one rural community with very low drug use, only 5 percent of seventh to eighth graders were categorized as at risk because of peer encouragement to use marijuana. In another rural community with high drug use, 32 percent were at risk because of a high level of encouragement to use marijuana.

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SCHOOL PROBLEMS AND DRUG USE

Beginning with Nylander (1962), in almost every study where school adjustment and drug use have been assessed, problems in school adjustment have been found to relate to drug use. Studies published in the last decade include Altenkirch and Kindermann (1986), Bachrach and Sandler (1985), Carlini-Cotrim and Carlini (1988*a*, 1988*b*), Frank et al. (1988), Jacobs and Ghodse (1988), and Wingert and Fifield (1985). Dropouts also have higher rates of drug use (Annis and Watson 1975; Bruno and Doscher 1979; Chavez et al. 1989; Fagan and Pabon 1990; Johnston 1973; Kandel 1975, 1978; Mensch and Kandel 1988; Whitehead 1970; Winburn and Hays 1974). In general, these studies show that drug users have poorer grades, are more likely to dislike school, have discipline problems in school, and more likely to drop out.

School Adjustment and Drug Use

Figure 3 shows the proportion of youth in each drug use classification with general school adjustment problems (poor grades or dislike of school). Drug-involved youth are much more likely to experience these problems. Moreover, they are more likely to have ditched school, to have failed a year, or to have been kicked out or suspended.

However, the relationship between drug use and risk factors can change with age. The differences in school adjustment between drug users and nonusers are much smaller for older students. One reason for this may be that, by their senior year, many adolescents who were having school adjustment problems and were using drugs have dropped out.

An age difference also appears with regard to ditching school. In the seventh to eighth grades, the drug users were much more likely to have ditched school. By the 12th grade, more than a third of all students surveyed had ditched school at least once. Thus, among younger students, ditching school is more indicative of risk than it is among older students.

While these relationships between school adjustment and drug use are strong, they are not perfect. There are many students who are doing poorly in school who are not using drugs, and many more nonusers than users in the seventh to eighth grades. Despite the strong relationship between school problems and drug use, there are more students who are having school problems and are not using drugs than students who are

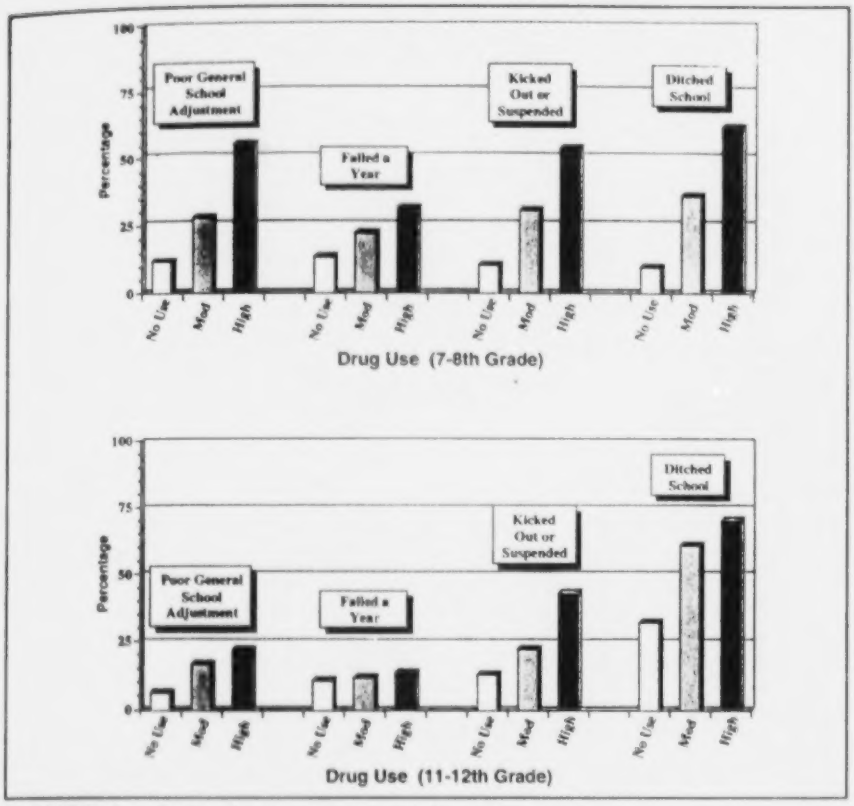

FIGURE 3. *School adjustment and drug use.*

having school problems and using drugs. This base rate issue needs to be kept in mind when considering risk factors; youth who have these problems are more at risk than if they did not have the problem, but possessing one or more risk factors does not mean that the student is using drugs.

School Adjustment of Peers

Poor school adjustment is probably related to drug use, in part because of its influence on peer clusters. Figure 4 shows this relationship. Drug-using youth were more likely than nonusers to report having friends who had one or more school adjustment problems.

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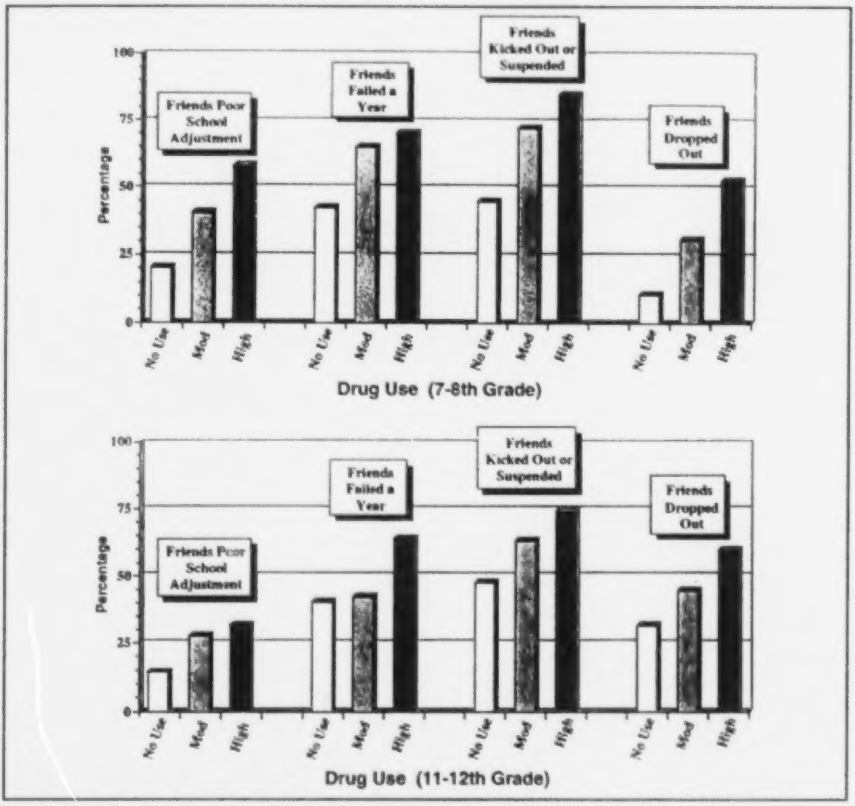

FIGURE 4. *Peer school adjustment and drug.*

However, many nonusing rural youth also had friends with school adjustment problems; almost half, for instance, indicated having friends who were dropouts. This situation occurs slightly more frequently in rural than in urban communities. For example, over 40 percent of rural youth in each classification had friends who had flunked a year; this figure was about 30 percent for urban youth. Because there are few young people in any age group in rural areas, and even though youth who are having school problems are more likely to associate with each other than with those who are doing well in school, the peer clusters in rural communities are likely to be slightly more mixed than those in urban environments where more choices are available.

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Formal Activities and Drug Use

Schools and communities typically run programs that are not thought of as drug prevention programs. Nevertheless, these programs can help prevent drug use with, for example, school-supervised activities that occupy time during and outside of school hours: music, drama, student government, yearbook, scouts, 4H, Junior Achievement, and so forth. One reason these programs prevent use is that adolescent drug use usually occurs during informal gatherings of peers—at parties, in cars, and in other locations where peer clusters hang out together with no adult supervision. When there are opportunities for formal activities, at a minimum they provide adult supervision and reduce the amount of time peer clusters can get together in the informal situations in which drug use may take place. Moreover, formal activities provide opportunities for young people to interact with adult leaders and teachers in healthy settings. These adults can be a powerful source of prosocial attitudes and beliefs and of negative attitudes toward drugs. Finally, they offer youth the opportunity to develop talents and skills and increase feelings of self-worth and achievement.

Figure 5 shows the involvement of rural students in school and community activities. Drug users were a little less likely to be involved in formal activities. Being in a church group seemed to provide the highest level of protection from drug use, probably because youth with higher religious identification self-select into activities that conform with church doctrine. Rural students who were not involved in any formal activities, in school or out, were somewhat more likely to use drugs. Twenty percent of these 11th to 12th grade rural students not involved with drugs avoided all formal activities, and 27 percent of the moderately drug involved engaged in no formal activities, whereas 37 percent of the highly drug involved participated in no formal activities. Young people who are not involved in activities may be less successful generally and may find each other, forming peer clusters with a potential for deviance. Children with failing grades may even be prevented by school rules from participating in school activities, giving them even more time to find each other and form peer clusters. Participating in activities does not mean that a student is not drug involved; formal activities help reduce opportunities for drug use, but students who want to use drugs will find the time and place to use them.

Increasing the amount of supervised activity is difficult in many rural areas. Lack of transportation prevents younger adolescents from

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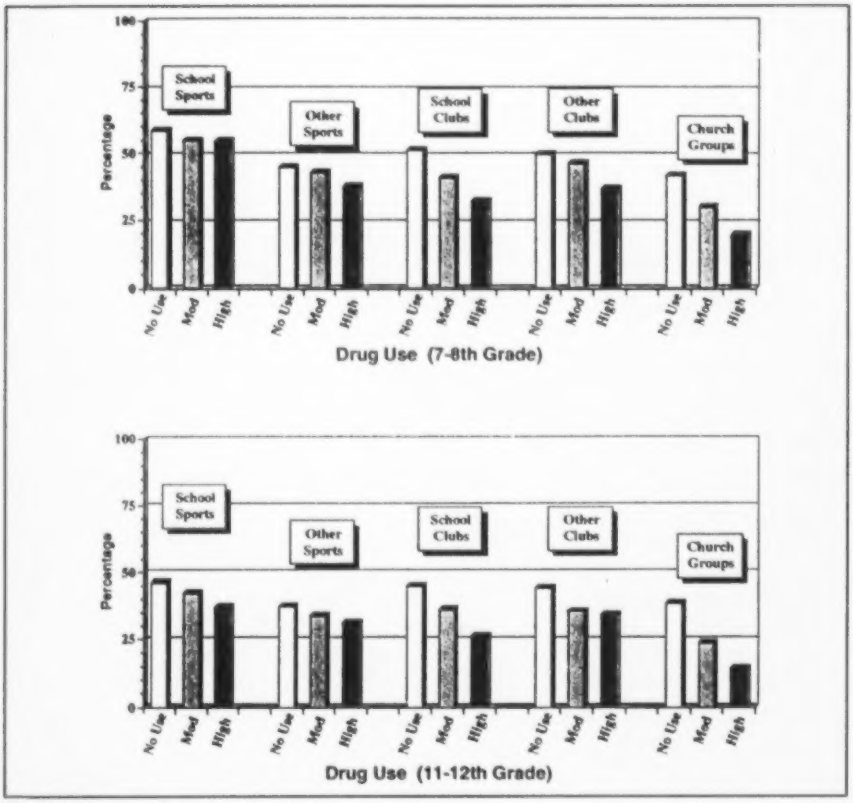

FIGURE 5. *Formal activities and drug use.*

attending meetings, whereas transportation poses a different problem for older rural youth. Rural 11th to 12th graders are much more likely than urban youth to have their own means of transportation, which increases opportunities for informal gatherings. Moreover, the car or truck provides a place where friends can use drugs without being observed.

The high availability of transportation among older rural youth is a major factor in adolescent drinking and driving. Edwards (1995) points out that 40 percent of rural seniors report using alcohol while driving around, in contrast to 25 percent of urban seniors. The danger of this activity is exacerbated by the unlit and poorly marked conditions of many country roads.

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FAMILY PROBLEMS AND DRUG USE

Beginning with Massengale and colleagues (1963), research studies have consistently found a relationship between family problems and drug use. Studies published in the past decade continue to confirm this relationship (Bachrach and Sandler 1985; Carlini-Cotrim and Carlini 1988*a*, 1988*b*; Frank et al. 1988; Jacobs and Ghodse 1988; Peterson et al. 1994). For the very young child, the family is the primary source of emotional support and socialization. During adolescence, the influence of school and peers increases, but the family remains an important source for support, encouragement, and guidance. Problematic family relationships can undermine the family's ability to help the child develop positive attitudes and values. The studies previously cited have shown that being in an intact family and having good family relationships provide some protective influence in reducing the chances of drug use. Alternatively, family problems, including family drug use, family aggression and hostility, and criminal records, increase the chances of drug use. Only four studies failed to show differences between drug users and nonusers in family intactness (Carlini-Cotrim and Carlini 1988*a*; De Barona and Simpson 1984; Kaufman 1973; Oetting et al. 1988). In each of these studies, drug users and nonusers were from groups experiencing serious socioeconomic and social isolation problems. Perhaps family breakdown or despair was so severe that no differentiation was possible.

Family Stability, Family Support, and Family Conflict

Figure 6 shows the proportion of broken families (mother and/or father not in home) among rural adolescents. Drug users were somewhat more likely to have families that were not intact. About one-third of the nonusing rural adolescents came from broken families, whereas 50 to 60 percent of the users came from broken families. The relatively high rate of broken families among nonusers once again indicates that risk factors do not cause drug use; rather, they point at areas of vulnerability.

Although most rural students indicated that their families cared about them a great deal, figure 6 shows that highly drug-involved rural youth were less likely than other youth to report that their families cared about them "a lot." Familial support provides children with security, helps them adjust to school, and increases the chances that they will develop friendships with other youth who do not have problems.

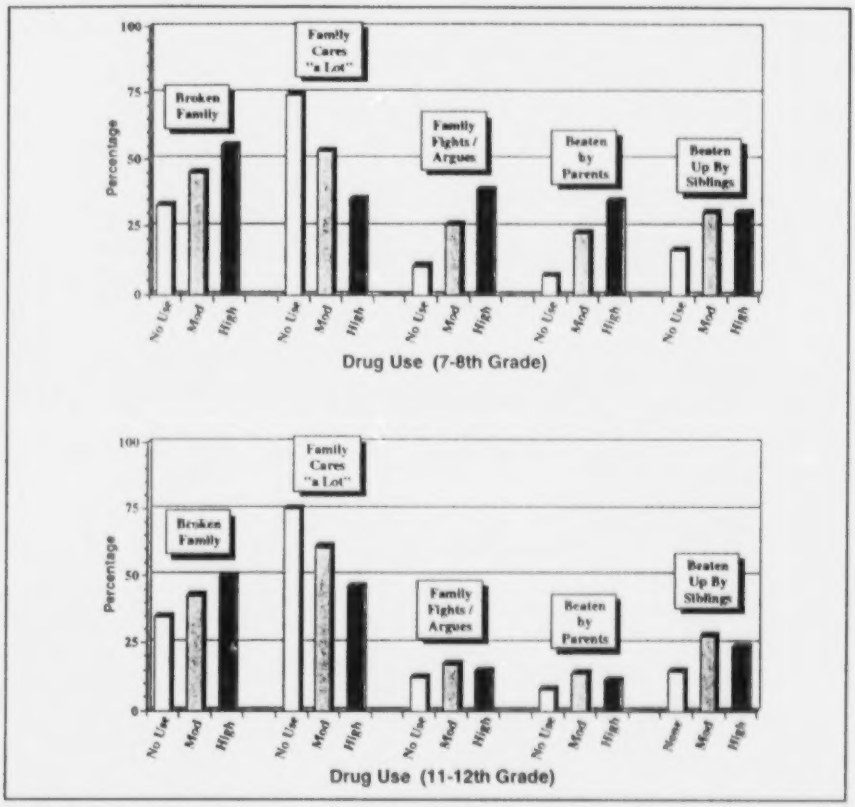

FIGURE 6. *Family support, family conflict, and drug use.*

Nearly all families have some fights and arguments, but when they occur too frequently, they disrupt family life, making it hard for the family to provide the child with emotional support. Drug-using seventh to eighth graders were much more likely than other youth to report high levels of family conflict. Older rural drug users were less likely to report that their families fought and/or argued "a lot," so family conflict was not as important a risk factor for older students. It is likely that the lower rate for older students reflects the high prevalence of school dropouts among drug users with serious family problems as well as the increased autonomy of older adolescents.

Family conflict can appear in other ways. Drug users were more likely than others to report being beaten by their parents, although by 11th to 12th grade, the difference was slight. Different students may interpret

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this item in different ways; one youth could define being beaten as a spanking for childish misbehavior, whereas another could define it as routine, severe beatings by an abusive parent. The fact that there is a relationship with drug use suggests that if a parent is using physical discipline to change behavior, he/she may change it in unexpected and unwanted ways.

Being beaten up by siblings was apparently more common than being beaten by parents. About 15 percent of nonusers indicated that this had happened to them. However, drug users were more likely to report being beaten up by their siblings. For some rural youth, this may be an indication of general family conflict; 41 percent of students who were beaten by parents had also been beaten by siblings, whereas 17 percent of those not beaten by parents had been beaten by siblings.

Family Sanctions Against Drugs and Family Communication About Drug Dangers

Figure 7 shows that most rural youth reported that their families were against the use of drugs. This sentiment was so widely held that the desired effect occurred only when the adolescent perceived the parents' views to be in the extreme against drug use. About 9 out of 10 nonusing rural students believed that their families felt very strongly about preventing the use of marijuana and other drugs, but only one-third of the highly involved drug users believed that their families would try to stop them from using marijuana.

It is somewhat surprising to find a lower level of family sanctions against the use of inhalants and other drugs in about one-third of the seventh to eighth grade heavy users. Perhaps these youngsters had such serious family problems that their responses did not indicate that their families approved of drug use; rather, their relationships with their families had broken down to the point that they believed their families did not care what they did.

As expected, family sanctions against getting drunk were much weaker than those for using drugs. Even among nonusing 11th to 12th graders, about a third believed their parents would not try "a lot" to stop them

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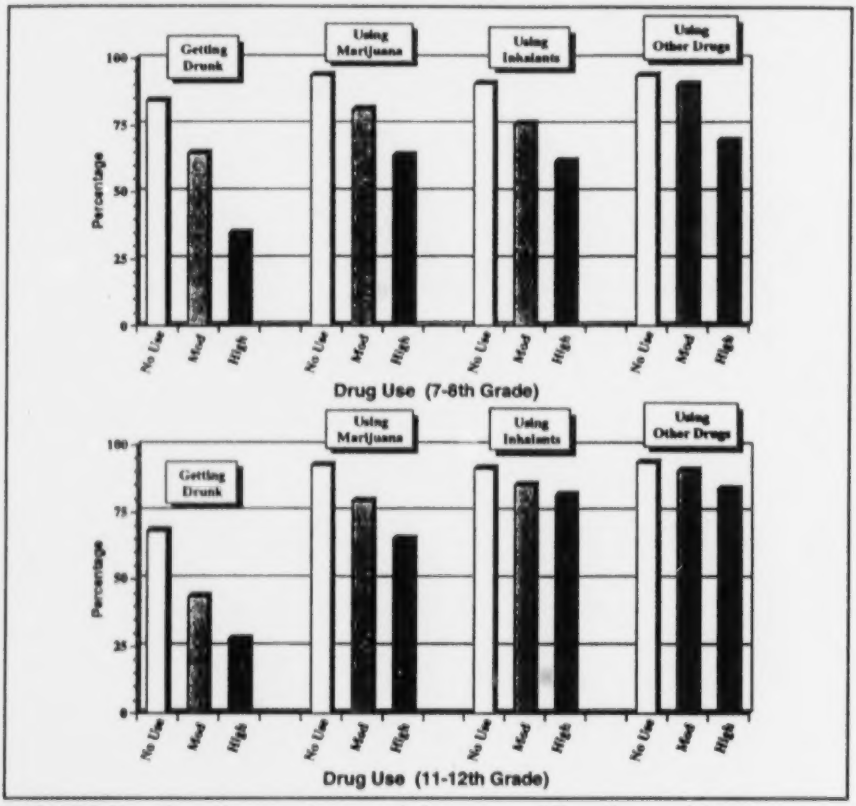

FIGURE 7. *Family sanctions and drug use: "Family would try to stop you from . . . ."*

from getting drunk. In contrast, among drug users, less than half believed their families would try "a lot" to stop them from getting drunk. Perceived family tolerance of alcohol use among older youth is not exclusive to rural areas; in fact, the authors' data suggest that there may be an even greater perception of family tolerance for getting drunk among urban teens.

Although most rural adolescents perceived their families to be strongly against drug use, many believed their families did not communicate with them about the dangers of drug use. A considerable number of rural adolescents reported that their families had not talked to them much about the dangers of drug use. Figure 8 shows that there were only small differences between classifications of drug use with regard to family

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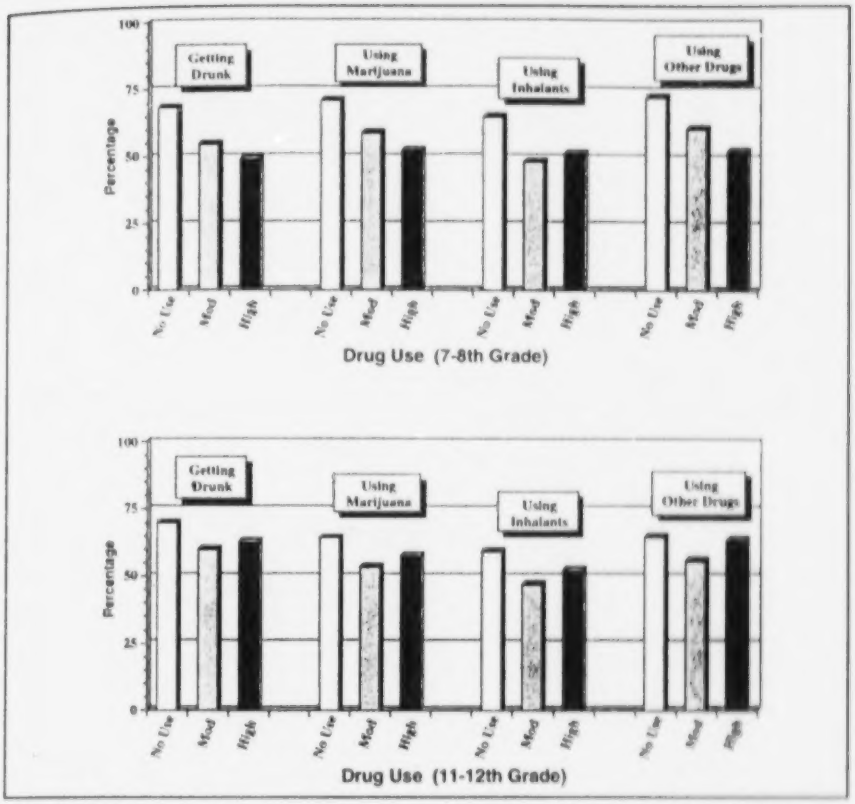

FIGURE 8. *Family communication about drug dangers: Family has talked about dangers "some" or "a lot."*

communication about drug dangers. However, nonusers were somewhat more likely than others to report that their family had talked about the dangers of drug use.

Family Support of the School

Family support does not stop with the home. Children are likely to do better in school when their families are supportive of and involved with the school, and encourage good school work. As previously shown, success in school makes it more likely that youth will associate with others who are successful and less likely that they will be in drug-using peer clusters. Figure 9 illustrates rural adolescents' beliefs about family involvement in school activities and support of school goals.

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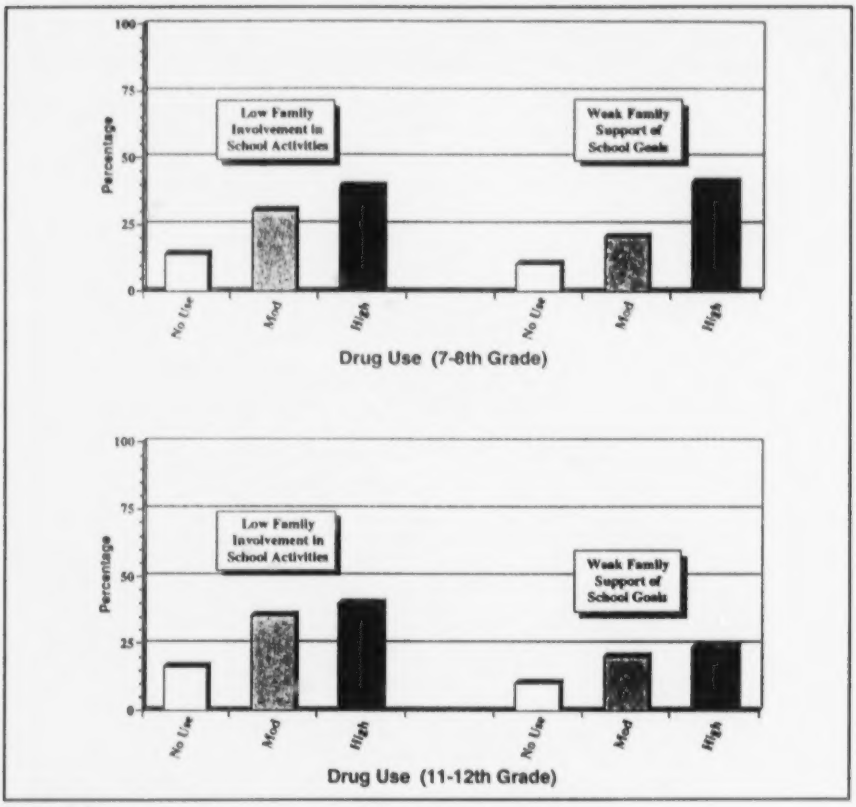

FIGURE 9. *Family support of the school and drug use.*

Youth who were involved with drugs were more likely to report that their families were minimally involved with the school. However, more than half of the drug users had families that knew what was going on in school, attended school events, and went to parent-teacher groups' meetings. Most rural families did support school goals; they would be concerned if their child skipped school, got bad grades, did not do homework, or quit school. However, drug-using youth more frequently reported that their parents did not support school goals "a lot."

PERSONAL CHARACTERISTICS

Some personal characteristics of very young children have been shown to be related to later drug use. Hawkins and colleagues (1986) reviewed the

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literature and noted that childhood conduct disorder, antisocial tendencies, frequent negative mood states, high-intensity emotional responsiveness, and inability to control emotions were evident among children who were involved with drugs when they were older. Studies have tended to confirm these general patterns: Later drug use has been found to relate to personal characteristics (particularly irritability, lack of impulse control, conduct problems, and aggressiveness) that would make it more difficult to build good relationships with the family and the school (August et al. 1983; Block 1971; Cloninger et al. 1988; Gomberg 1989; Pulkkinen 1983; Tarter 1988; Tarter et al. 1977, 1984; Werner 1986).

Why are these traits related to drug use and other problem behaviors? It is possible that they make it difficult for a child to build good relationships with parents, which makes it more difficult to learn prosocial attitudes, values, and behaviors through early parent-child interactions. During elementary school, children who showed a high need for independence and lack of conformity and males who were aggressive, particularly if they were shy, were more likely to use drugs later (Hawkins et al. 1986). These traits could make it more difficult for children to get along with teachers, adequately pay attention to lessons, and conform to classroom rules, all of which could lead to poor school adjustment. By the seventh grade, it is too late to measure early childhood characteristics directly, but early problems can influence traits related to later drug use. However, some problem behaviors disappear as the child develops; others change form or expression.

Drug Use, Depression, and Low Self-Esteem

There is considerable interest in adolescent depression and low self-esteem as causes for drug use. Attempts to positively correlate emotional distress with drug use, however, have not been entirely successful. Results have been mixed. Even when relationships have been found, they have tended to be small (Cockett and Marks 1969; Galli and Stone 1975; Spevack and Pihl 1976; Spotts and Shontz 1980, 1984*a*, 1984*b*; Swaim 1987, 1991; Swaim et al. 1989).

Because of space limitations, this chapter has not dealt with gender differences. To this point, this has not created a problem because results for most risk factors are quite similar for males and females. However, gender differences in the relationships between drug use and depression and self-esteem are considerable. First, females at both grade levels are

more likely than males to suffer from depression and low self-esteem. Second, the differences between male drug-using and nonusing groups in these emotional distress problems are small, while the differences between drug users and nonusers among females are quite large (figure 10).

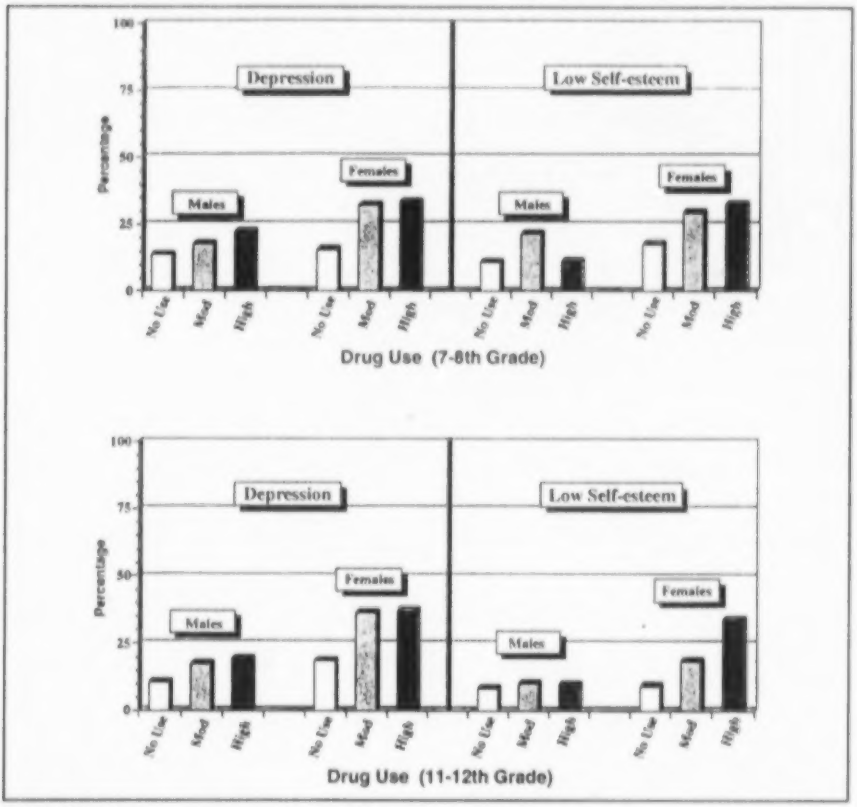

FIGURE 10. *Depression, self-esteem, and drug use.*

Some self-medication theories of drug use suggest that people take drugs because they are chronically distressed and drugs help make them feel better. However, recent research on alcoholics shows that the connection between depression and alcoholism is not strong and that the depression often appears well after the onset of alcoholism. On the other hand, Tschann and associates (1994) found that general emotional distress can precede drug use among sixth and seventh graders. The results presented

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here suggest that depression may be a risk factor for drug use primarily among young adolescent females.

Research on the relationship between self-esteem and drug use has also been inconsistent. As in this study, some find that drug users are more likely to have low self-esteem. Other studies find no differences between drug users and nonusers, while still others find that young children with high self-esteem are slightly more likely to try drugs.

These mixed results make more sense when the items used to measure them are examined. For example, the item "I am proud of myself" can be related to a number of personal attributes. One youth could say, "I am proud of myself because I am an excellent student." That kind of school adjustment pride would probably relate to lower drug use because doing well in school is related to lower drug use. Another student could say, "I am proud of myself because I am tall." That kind of self-esteem would probably not be related to drug use became height does not predict drug use. A female student might say, "I am proud of myself because I am physically mature and can date older boys." This kind of self-esteem might be positively related to drug use because early physical maturity in girls has been shown to be related to earlier use of marijuana. Perhaps the worst case linking high self-esteem to drug use would be a youth who says, "I am proud of myself because I am a member of a street gang."

Children who fail in other areas often can find acceptance and self-esteem through their street smarts and gang membership. Gang membership not only relates to drug use but can also mean drug distribution and involvement in other criminal behaviors. Thus, self-esteem can come from many sources. When it is rooted in good family relationships and good school adjustment, it is a positive force. For adolescents, another important source of self-esteem is peers. When self-esteem comes from being accepted by and liked by "good kids," it is likely to be a personal asset, and high self-esteem is likely to include avoidance of drugs. On the other hand, when self-esteem comes from being accepted by peers who are using drugs, drug use can become part of trying to maintain self-esteem. As with depression, a higher frequency of self-esteem problems has been found among adolescent females. Moreover, this study shows that rural girls who use drugs are more likely than other girls to experience low self-esteem.

Drug Use, Anger, and the Need for Excitement and Taking Risks

Unlike depression and low self-esteem, chronic anger has consistently shown a significant relationship with substance use (Oetting et al. 1989; Swaim et al. 1989). Young women are as likely to have high trait anger as young men (Deffenbacher 1992; Spielberger 1988), and there are no gender differences in the percent at risk for drug use because of anger. Minor gender differences do exist in the consequences of high anger. Angry men are more likely than women to report doing damage to property and to other people (Lynch and Deffenbacher 1995).

Several studies have also shown a strong connection between sensation-seeking and adolescent drug use (Donohew 1988, 1990; Donohew et al. 1990, 1991; Segal and Singer 1976; Spotts and Schontz 1984c; Zuckerman 1988; Zuckerman et al. 1978). As with anger, sensation-seeking males and females are both at risk for drug use (Zuckerman 1994). Figure 11 shows that drug use is related to both anger and excitement-seeking in this sample.

When angry youth get drunk, they seem to get into more trouble than other youth who get drunk (Leibsohn et al. 1994); they get into fights, argue with police, and drive recklessly. These negative behaviors probably also occur under the influence of other mind-altering substances.

Adolescents who have a high need for excitement tend to try many different activities in their search for novelty. Drugs may present one way in which they can experiment and find excitement; both the effect of the drugs and the danger of being caught can be exciting. It seems likely that young people with a high need for excitement will form peer clusters with similar youth and that the group will have a greater potential for risky behavior than the individuals alone. Unlike anger, which most often is a destructive emotion, the need for excitement can be an asset or a liability. It can be a motivation to be creative, to try new things, to explore and learn new skills. It also can create problems when it leads to speeding, dangerous actions, and experimenting with drugs.

Drug Use and Deviance

The personal characteristic most strongly linked to drug use is a general tendency toward deviance. Every study that has examined tolerance of

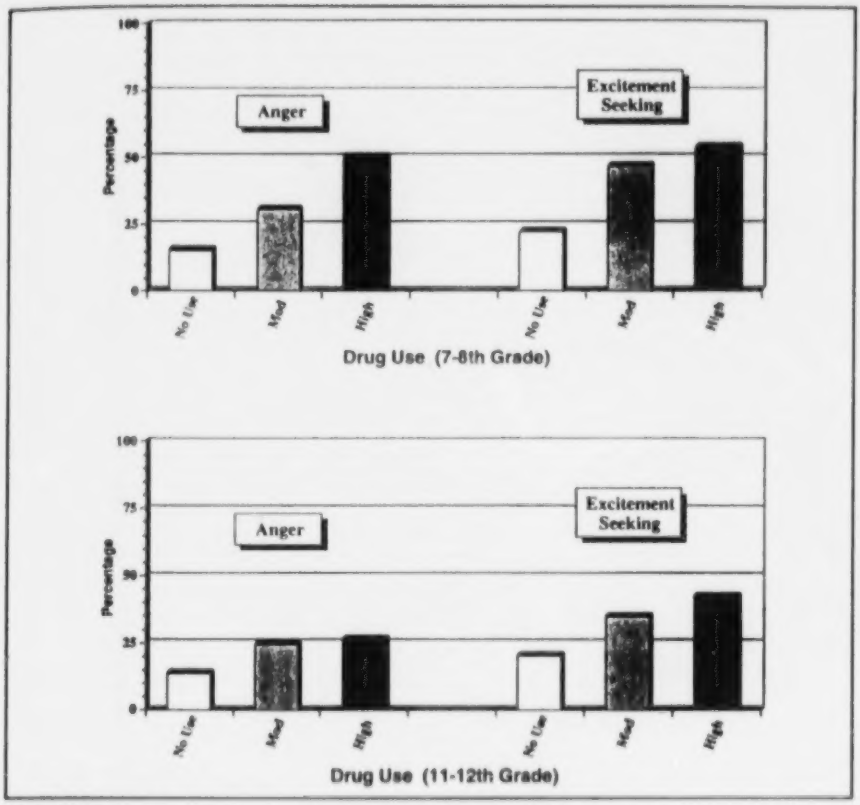

FIGURE 11. *Anger, excitement seeking, and drug use.*

deviance, unconventionality, or deviant behavior has found these characteristics to be related to drug use (Brook et al. 1980, 1984, 1985, 1990, 1992; Jessor et al. 1968; Jessor and Jessor 1977, 1978; Newcomb and Bentler 1988; Oetting and Beauvais 1989).

Figure 12 shows that drug-using youth were more likely to lie, cheat, or steal and to be tolerant of these deviant behaviors. Moreover, drug-using rural youth were more likely than other rural youth to have committed a crime (robbery, vandalism, car theft, or some other crime) and to have been arrested.

The gang involvement measure was included because of the high potential for deviance found in typical street gangs in larger cities. Until

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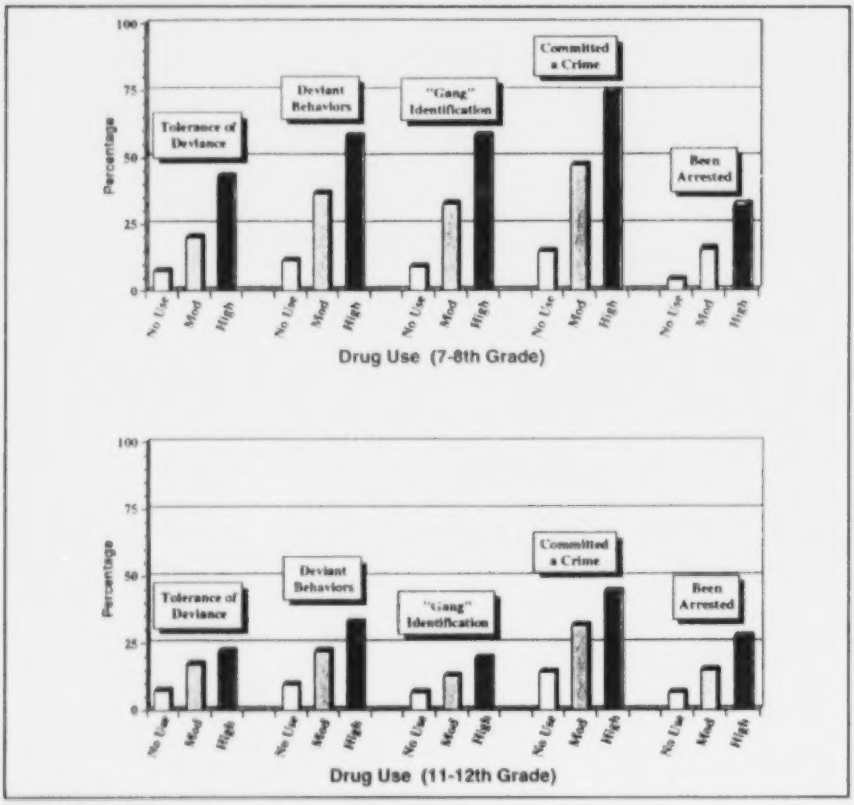

FIGURE 12. *Delinquency and drug use.*

recently, it was thought that rural youth were not involved in gangs, but this assumption may no longer hold true (Donnermeyer 1994). Street gang members have moved into rural areas to produce and market drugs.

Young people may have very different beliefs about what constitutes a street gang. Thus, responses to this question should not be used as an accurate indicator of the level of gang activity in rural America because there is no way of knowing what kind of gang a youth is referring to when answering this question. Regardless of definition, more than half of the seventh to eighth grade students who were highly drug involved had some kind of gang identification; they had been, were, or wanted to be gang members. A comparison of these data with the authors' data from metropolitan areas suggests that the percent of youth with some gang identification is the same for rural and urban youth, although the rates would undoubtedly be higher in an urban ghetto or barrio.

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Figure 13 shows the rates of violent behaviors among the seventh to eighth grade youth. The rate reported for having "beaten up someone" was quite high. The rates for the other violent behaviors were lower, but their prevalence among drug users was higher than among nonusers. A considerable amount of personal physical conflict goes on in elementary, middle, and junior high schools, and drug users are likely to be involved in producing that violence.

A comparison of the rural and urban data indicates that rural youth are more frequently involved in fights; the rates for rural youth are about 5 percent higher than those for urban youth. However, the proportion of youth engaged in other violent or potentially violent behaviors was quite similar across the rural and urban samples. Because a rifle or shotgun may be viewed as part of the general equipment for farming or ranching, it was expected that rural youth would have a higher rate of taking a gun

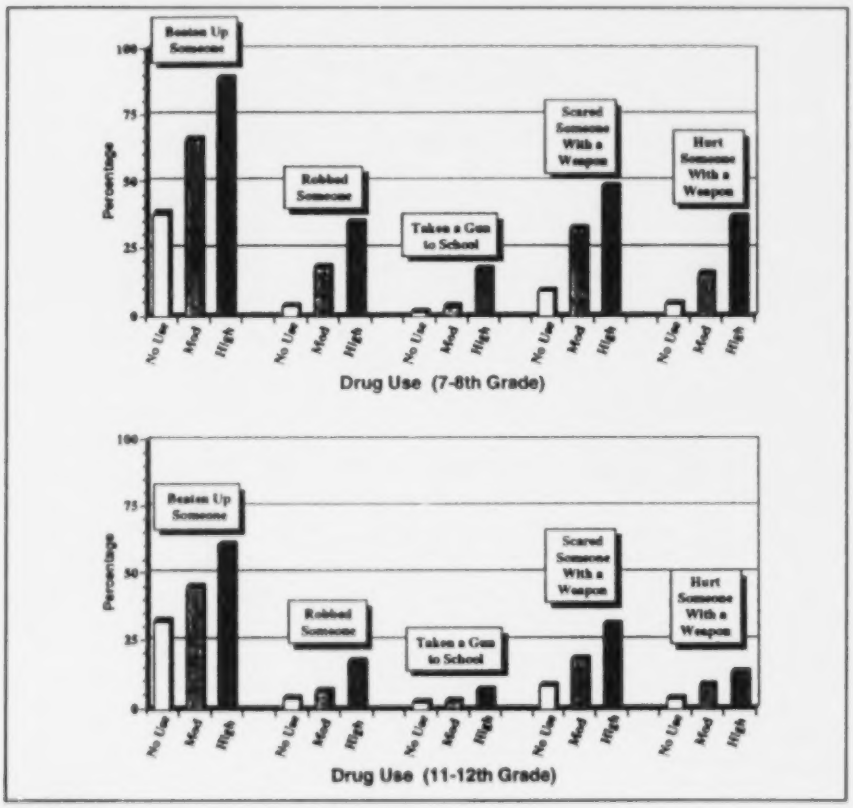

FIGURE 13. *Violence and drug use.*

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to school. There were, however, almost no differences between rural and urban youth on this measure.

Drug Use and Victims of Violence

Figure 14 shows that many rural youth had been victims of violence. The most common form was being beaten up by someone other than a family member, reported by more than 16 percent of the sample. A considerable number had also been robbed, hurt with a weapon, or sexually assaulted. Among seventh to eighth graders, drug users were noticeably more likely than nonusers to have been beaten, robbed, or hurt with a weapon.

As expected, females were more likely to be raped or sexually assaulted than males; being sexually assaulted is strongly linked to drug use. Among seventh to eighth grade students, nearly one in five males and almost half of the females with a high level of drug involvement reported sexual assault.

These data clearly illustrate that even though drugs may be used socially by some young people, they are also associated with crime and violence.

DISCUSSION AND CONCLUSION

Has anything new been learned about rural adolescents' drug use? Only if it is a new idea that risk factors important for understanding drug use among urban and rural youth are similar. At one time, rural adolescents were protected from drug use (Robertson 1994), but findings indicate that the prevalence of adolescent drug use is now fairly constant across areas of the country defined by population density and proximity to urban centers (Edwards, this volume). The findings reported in this chapter highlight these similarities. They examine personal and social factors that place both urban and rural youth at risk, and call into question aspects of rural communities, schools, family life, and peer group associations that may contribute to increased of drug use among rural youth.

Although drugs have powerful psychoactive effects, adolescent drug use is predominantly a social behavior rather than a response to the addictive properties of drugs. With few exceptions, adolescents are neither addicted to nor dependent on drugs. Except for tobacco, they rarely use enough of any single drug to develop physiological dependence. The risk

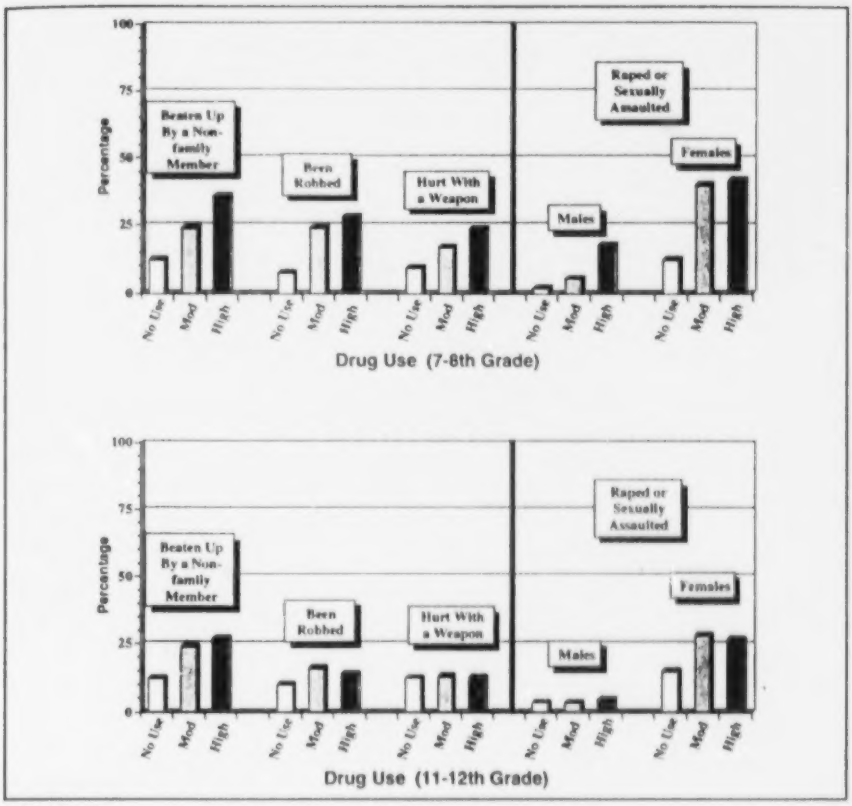

FIGURE 14. *Victimization and drug use.*

factors for adolescent drug use, therefore, are more likely to be social and psychological than physiological. Family, school, and peers are the primary socialization forces in a youth's life, and the results presented here are consistent with the view that drug use is a social behavior determined by socialization. Figures 1 through 9 confirm that family, school, and peer characteristics are related to drug use among rural youth. The orderly relationship found between drug involvement and each of these risk factors attests to the validity of these findings. Nearly every risk factor graph illustrates that nonusers have the lowest number of risk factors; those who are moderately drug involved have a greater risk, and those who are highly drug involved have the greatest risk.

Families can have a direct influence on substance use, particularly the substances legal for adult use—alcohol and tobacco. The presence of a smoking parent doubles the risk of a child's smoking, and the risk

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quadruples if the parent's attitude toward the child's smoking is conducive. Families can also encourage adolescent alcohol use. Only about half of the juniors and seniors in this study believed that their parents would try hard to stop them from getting drunk. In focus groups in rural communities, parents often make such statements as, "I don't mind them drinking, it's better than using drugs," and "I just tell them to stay away from 6th street, that's where the sheriff is." It is less common for parents to tolerate the use of illicit drugs, although there may be greater tolerance for marijuana use among parents who used marijuana in their youth. Those parents need to know that the marijuana used today is as much as 500 percent stronger than what was available 20 years ago (O'Dea et al., this volume).

However, much of the family influence on drug use is indirect. For example, this study shows that drug use increases when young people believe their families do not care and when there is family conflict. Similar effects occur with regard to school adjustment. Children with problems in this area are more likely to select friends who also are having problems, and those peer clusters are more likely to get involved with drugs. School adjustment rates vary across rural communities. In some rural areas, for example, dropout is rare; everyone expects adolescents to finish high school, and they do. In one of the nine communities in this study, 21 percent of 11th to 12th graders had flunked a year of school, whereas the rate in another community was only 2 percent. Only the most extreme school adjustment problems result in dropout. Dropouts typically have higher rates of drug involvement than youth who stay in school. It is not clear whether the rate of failing a year or whether higher or lower dropout rates are related to the community's rate of drug use; more data on drug use in rural communities are needed to answer these questions.

Some personal characteristics are also associated with drug use. For example, young women who are depressed and/or have low self-esteem may find that drug use relieves their negative feelings. It may also make them more susceptible to involvement with drug-using peers. Moreover, angry youth and adolescents with a high need for excitement or risk-taking may associate with others who have similar interactional styles and activity levels. Unfortunately, drug use may satisfy the need for risky and exciting activity. These hypotheses warrant further study to inform understanding of why and how young people with certain personality traits have an increased potential for drug use.

The most powerful immediate influence on drug use is peers. Children with relational problems at home have an affinity for other youth with problems with whom they form peer clusters with a high potential for drug use. Thus, rural adolescent drug users are involved with drug-using peers and those peers are likely to reinforce drug use. On the other hand, nonusers are more likely to have friends who would try to stop them from using drugs.

When there are strong bonds between an adolescent and his or her family, when school adjustment is good, and when a youth selects peers who are also doing well in school and who discourage drug use, the chances of serious drug involvement are greatly reduced. When there are breakdowns in any of these relationships, the chances for involvement with drugs are increased. Studies of the accumulation of risk factors show that there is an almost linear relationship; the greater the number of risk factors, the greater the chances of drug use (Swaim 1991).

Even though the personal and social risk factors are generally the same for urban and rural youth, there is likely to be more variability in risk factors across rural towns. Because a wide range of people are grouped together in urban areas, base rates for various problems found in one urban location are similar to those found in others. By definition, rural towns are small and the people within rural towns are likely to be more homogeneous in attitudes, values, and behaviors than those living in urban settings. Therefore, small towns are likely to differ widely from one another, with some having high levels of a particular problem and others having low levels. The variability in drug use and prevalence of risk factors in rural areas is important and the relationship between the two needs to be examined.

A major need in rural substance abuse research is a focus on the relationships among community characteristics, other risk factors, and drug use. Community characteristics probably affect drug use through their influence on the primary agents of socialization. Community influences work through various mechanisms, usually sociopolitical, but also environmental, geographic, and in other ways. For example, exposure to toxic wastes or high lead levels can have neurological consequences that influence the child's ability to bond with parents, limit learning ability, prevent adequate school bonding, and result in increased potential for drug use. More often, sociopolitical characteristics of the community influence social interactions. For example, a high poverty rate in a community could influence the stability of families and limit the

ability of schools to provide an environment that allows for strong school bonding. These factors would increase rates of adolescent drug use. Similar effects would be expected in areas characterized by such other community risk factors as high levels of neighborhood crime. In general, factors associated with the primary socialization agents are the major determinants of substance use. However, community characteristics can influence both the factors and agents. Because rural communities are smaller and often homogeneous, they offer a rich ground for this type of research.

The results of this study also illustrate that drug use is not a singular problem. Drug use, particularly heavy use, is associated with other problem behaviors, criminal acts, and violence. One of the questions that has been asked about young people who are in trouble is, "Which came first, delinquency or drugs?" Longitudinal and prospective research studies suggest that many youth who are heavily involved with drugs showed signs of delinquency before initiating drug use (Elliott et al. 1988). In this study, drug use seems to be one more aspect of a continuing pattern of general delinquency. But, alcohol and drugs can also encourage delinquency and violence, and many reports show that crimes and violence take place while the person is drunk or high. In a practical sense, the question "Which came first?" may not be important for the adolescents themselves. It is more important to know that drug use, particularly heavy drug use, is likely to be associated with other problem behaviors and that prevention planning for high-risk youth must deal with the full constellation of problem behaviors.

Despite the relationship between drug use and deviance, most rural students who use drugs are not deviant. Differences in deviance between users and nonusers are larger for seventh to eighth graders than for older youth. This is probably because the few young drug users are deviant in several areas and drug use is only one manifestation of a much larger problem. Older drug users include adolescents with severe problems, others with lesser problems, and others who use drugs for social reasons. Thus, just because drug use is present, the user is not necessarily involved in other kinds of criminal or problem behaviors. In fact, for many youth, drug use is normative in that it is part of the evolving social scene of otherwise good kids. However, prolonged heavy use of drugs, using drugs as a means of dealing with emotional or personal crises, or drug use in the context of a major stressful event can redefine the situation, making the social user habitual or dependent.

Although the results of this study provide a start to understanding risk factors among rural youth, they are only a beginning. A major research investment is needed to determine how rural community characteristics influence risk factors, how risk factors lead to the formation of deviant peer clusters, how normative substance use is encouraged and maintained, and whether there are regional, ethnic, or other variables that lead to different relationships among risk factors and drug use in rural communities.

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